

Boundaries Tested Out Of Necessity

By Gregg Zoroya, USA Today

BALAD, Iraq - One morning this month, neurosurgeons at Balad performed a series of brain surgeries. Two were on Iraqi men who had reportedly tried to drive through a checkpoint and were shot. Another was on a U.S. soldier with a bullet wound in his head.

Doctors removed skull caps in each case to relieve brain swelling. To help the blood in clotting, each patient was injected with Recombinant Factor VIIa, a manmade version of a blood-clotting protein found in the human body.

Expensive - it's several thousand dollars a dose - and originally intended for hemophiliacs, the protein is used sparingly in the USA. But doctors at the military hospital in Balad rely on it, convinced that it helps keep patients alive.

"The bean counters can say what they want," says Army Maj. Brett Schlifka, 35, of Philadelphia, one of the neurosurgeons. "I am a proponent of Factor VII, and I think it should be liberally used, especially in this theater and then back home when it's indicated."

Pushing a medical concept beyond known boundaries is precisely the innovation that comes from combat medicine, says Dale Smith, professor of medical history at the Uniformed Services University of the Health Sciences in Bethesda, Md. "There are good things that happen in the course of war."

The war experience with Recombinant Factor VIIa could provide valuable data for the home front about an expensive medicine, says Richard Dutton, chief of trauma anesthesiology at the University of Maryland Shock Trauma Center in Baltimore. "It could help us understand when it works and when it doesn't, and what dose to use," he says.

Doctors say the same could be true for a experimental device called a NovaLung. It's not much larger than a laptop computer. Developed in Germany in 2003, it acts like an artificial lung to filter poisonous carbon dioxide out of the patient's blood and filter in oxygen.

The makers have not yet approached the U.S. Food and Drug Administration for approval. But American military doctors, operating under special provisions, used it in three cases: Two servicemembers survived because of it, they say, but a third did not. A NovaLung was raced to Baghdad early this month to help a fourth American who had lost a lung, but the patient died before the device arrived.

"We're using them on patients who are really up against the wall and have exhausted all other treatment options," says Col. John Holcomb, commander of the U.S. Army Institute of Surgical Research. "The potential for efficacy with this device is there."